2022 Spring Fire Weather Webinar

National Weather Service, Albany, NY
Dan Thompson, Meteorologist/Fire Weather Program Leader
Steve DiRienzo, Warning Coordination Meteorologist/
Acting Meteorologist-In-Charge







Outline

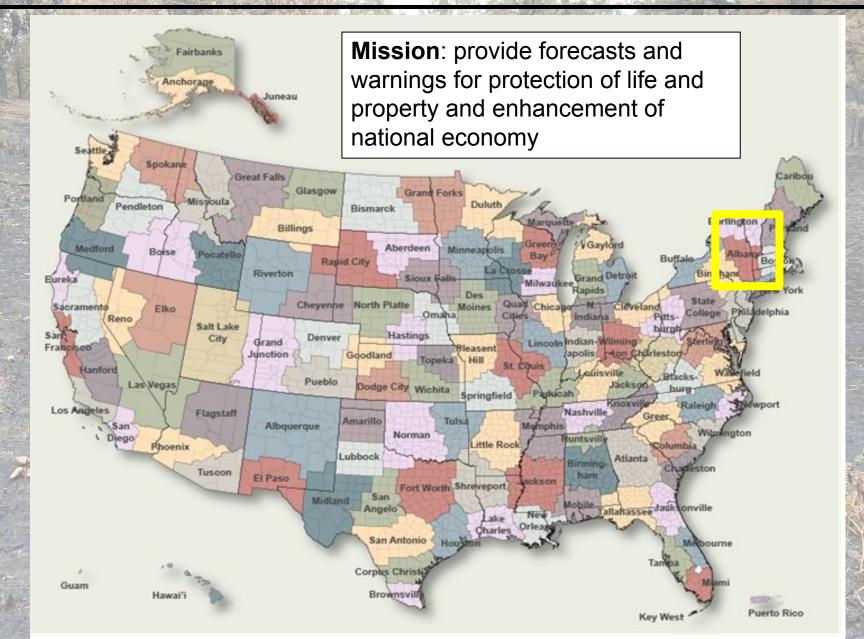


- 1. Introductions
- 2. Fire Weather Coordination
- 3. NWS Albany Fire Weather Products
- 4. NWS Albany Fire Weather Webpage
- 5. Spot Forecast Webpage
- 6. 2021 Fire Weather Season Review
- 7. 2022 Spring Outlook
- 8. Miscellaneous Items
- 9. Open Forum



National Weather Service







NWS Albany





- Department of Commerce
 - NOAA
 - NWS



NWS Albany



- We moved! Now located in ETEC building on the Harriman Office Campus
- About 25 people on staff
- 24/7/365 operations

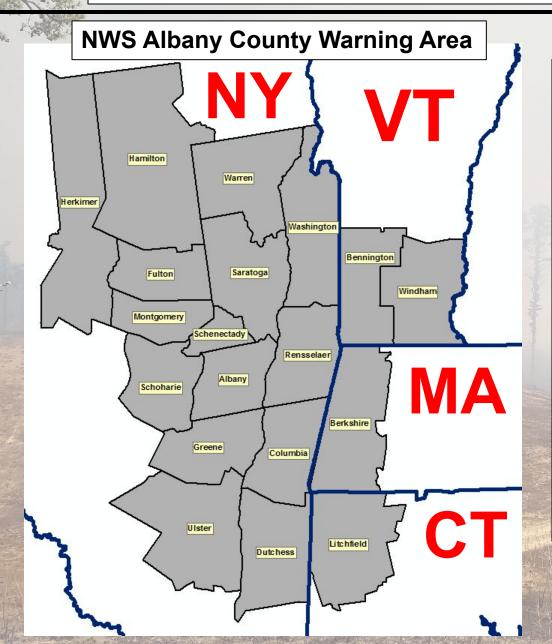






Fire Weather Coordination





- NWS Albany is the New York State Liaison office – we coordinate non-routine fire weather products for eastern New York with Captain Jaime Laczko (NYSDEC)
 - New this year: coordinating the day prior (at latest) instead of the morning of critical fire wx conditions
- NWS Burlington coordinates with Vermont
- NWS Norton, MA and Upton, NY coordinate with Massachusetts and Connecticut



NWS Albany Fire Weather Products

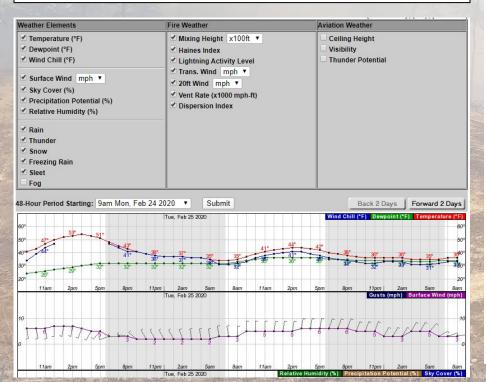


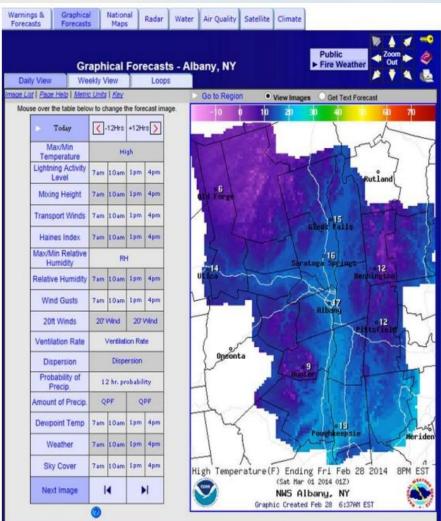




Routine Products

- Gridded Fire Weather Forecast
 - Graphical forecast of fire weather elements
 - Updated daily around 4 am/pm (or more frequently if necessary)







NYZ032-270915

Fire Weather Products



Routine Products

- FWF Fire Weather Planning Forecast
 - ☐ Brief fire weather discussion, followed by tabular forecast for the next ~48 hours and extended forecast
 - ☐ Zone-averaged forecast
 - ☐ Issued daily around 4 am/pm Mar–Nov, updated more frequently if necessary

Northern Herkimer-					
Including the cities	s of Big Moose	e, Eagle Bay, I	McKeever,		
Old Forge, Atwell, M	Nobleboro, and	d Northwood			
537 PM EDT Thu Apr 2	26 2018				
	Tonight	Fri	Fri Night	Sat	
CLOUD COVER	PCldy	PCldy MCldy		MCldy	
PRECIP TYPE	Showers	Rain	Showers	Showers	
CHANCE PRECIP (%)	40	40	40	60	
EMP (24H TREND) 33 (-7)		54 (+8)	38	53	
RH % (24H TREND)	94 (-4)	52 (-19)	100	61	
20FTWND-AM(MPH)		S 6		SW 6	
20FTWND-PM(MPH)	W 10 G18	S 9	SE 7	SW 9	
PRECIP AMOUNT	0.01	0.06	0.06	0.11	
PRECIP DURATION	1	1	4	6	
PRECIP BEGIN	6 PM	10 AM	Continuing	Continuing	
PRECIP END	RECIP END 8 PM		Continuing	Continuing	
MIXING HGT(FT-AGL)		5800		6200	
TRANSPORT WND (MPH)		S 16		SW 15	
VENT RATE (KT-FT)		81200		80600	
DISPERSION		5		5	
LAL	1	1	1	1	
HAINES INDEX	2	3	2	2	
REMARKSNone.					







Routine Products

- FWM National Fire Danger Rating System (NFDRS) Forecast
 - Coded point forecasts valid 1300 LT for the next 7 days beginning the following day
 - ☐ Issued daily around 3 pm Mar–Nov
 - Issued for six NFDRS sites in eastern NY and southern VT:
 - Albany Pine Bush, NY (300011)
 - Belleayre Mountain, NY (301111)
 - Lake Pleasant, NY (300411)
 - Stony Kill, NY (305103)
 - Saratoga Battlefield, NY (301901)
 - Woodford, VT (431303)





Non-Routine Products: Red Flag Program

 Fire Weather Watches and Red Flag Warnings are issued when the combination of dry fuels and weather conditions support extreme fire danger and/or fire behavior

Red Flag Criteria	Vegetation Stage I or II cured/transition - Spring/Fall	Vegetation Stage III green - Summer
Relative Humidity	Less than 30% for at least 2 hours	Less than 30% for at least 2 hours
Rainfall	N/A	Less than 1/4 inch in previous 8 days
Wind	Sustained or frequent gusts above 25 mph for at least 2 hours	Sustained or frequent gusts above 25 mph for at least 2 hours
Fuel	Partner confirmation of dry/receptive fuels	Keetch-Byram Drought Index above 300 Partner confirmation of dry/receptive fuels
Temperature	N/A	N/A

2022 changes in bold





Non-Routine Products: Red Flag Program

- Fire Weather Watch: Issued 18–96 hours in advance of the expected onset of Red Flag conditions to give advance notice
 - ☐ Issued per coordination with state fire weather contacts
- Red Flag Warning: Issued typically within 24 hours of Red Flag conditions when confidence is high in reaching criteria
 - Issued per coordination with state fire weather contacts
- Special Weather Statement: Issued when conditions support enhanced fire weather behavior, but at levels below Red Flag criteria
 - Issued per coordination with state fire weather contacts

Also can be issued to raise elevated fire weather awareness for the fire weather community and/or general public





Non-Routine Products: Red Flag Program

- Fire Weather Watch: Issued 18–96 hours in advance of the expected onset of Red Flag conditions to give advance notice
 - Issued per coordination with state fire weather contacts
- Red Flag Warning: Issued typically within 24 hours of Red Flag conditions when confidence is high in reaching criteria
 - ☐ Issued per coordination with state fire weather contacts
- Special Weather Statement: Issued when conditions support enhanced fire weather behavior, but at levels below Red Flag criteria
 - Issued per coordination with state fire weather contacts

Land to the state of the state

Also can be issued to raise elevated fire weather awareness for the fire weather community and/or general public





Non-Routine Products: Red Flag Program

- Fire Weather Watch: Issued 18–96 hours in advance of the expected onset of Red Flag conditions to give advance notice
 - Issued per coordination with state fire weather contacts
- Red Flag Warning: Issued typically within 24 hours of Red Flag conditions when confidence is high in reaching criteria
 - ☐ Issued per coordination with state fire weather contacts
- Special Weather Statement: Issued when conditions support enhanced fire weather behavior, but at levels below Red Flag criteria
 - ☐ Issued per coordination with state fire weather contacts
 - Also can be issued to raise elevated fire weather awareness for the fire weather community and/or general public





Non-Routine Products: Spot Forecast

Download the Product Description Document (PDD)

- Detailed forecasts of local conditions in support of wildfire suppression and natural resource management (e.g., prescribed burns)
- Typically issued with a ~20 minute turnaround time from the request
- Requests can be made via weather.gov/spot





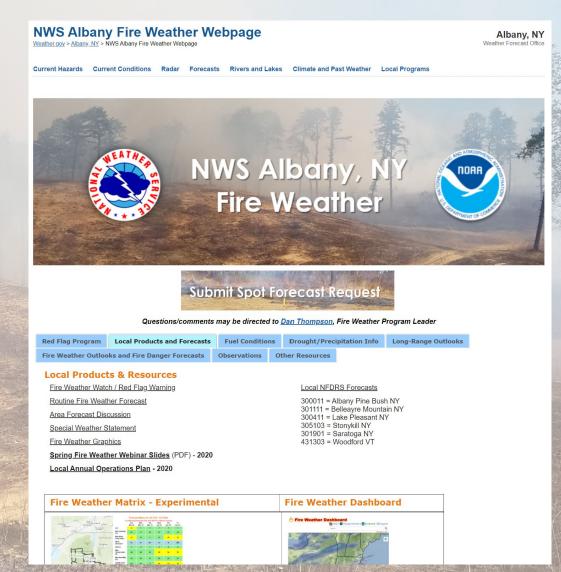


NWS Albany Fire Weather Webpage



weather.gov/aly/fire

 Please send feedback to dan.b.thompson@noaa.gov



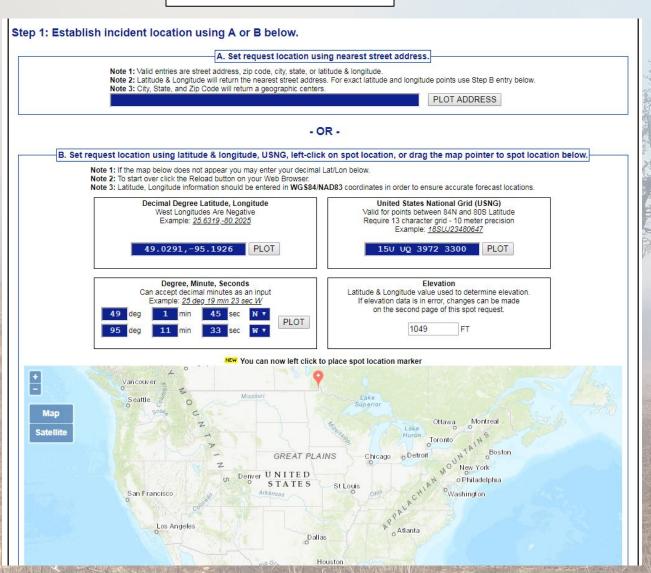






weather.gov/spot

 Enter nearest address, lat/lon, or click the map







Step 2: Select the incident type for the request.

<u> </u>	Set Incident Type
Fire	
Wildfire	Prescribed Fire
Hazardous Mat	erials
O HAZMAT	Land HAZMAT Inland Waterway
Search and Re	scue
O SAR Lar	nd SAR Water
Marine	
Other (Vol	cano, Earthquake, Special Event)

Step 3: Proceed to detailed incident request form.

After setting your location and incident type above, click on the 'Generate A Spot Request' button below to proceed to the SPOT request form.

Generate A Spot Request

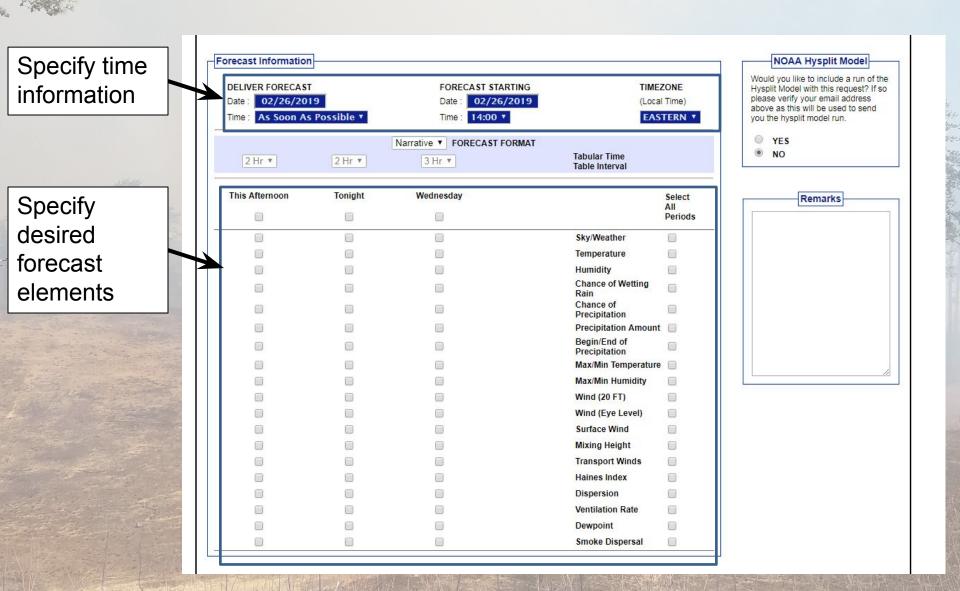




		Spot R	Request Contact Infor	mation		
(*) PROJEC	T NAME: NWS ALY TES	ST			st policy, /S Instruction 10-401 at: gov/directives/010/010.ht	tm
(*) Requesting	Agency: NWS Albany		(*) Requesting Official:	Dan Thompson		
(*) E-mail	address: dan.b.thompse	on@noaa.gov	(*) Phone number:	555-555-5555	Phone Extensio	n:
Contac	t Person:		FAX number:			
	1.00 (TAA IIIIIII			
	Location				Weather Supplement	ntal Information
WGS84 / NAD83 preferred)					Weather Suppleme	ntal Information (In Acre
WGS84 / NAD83 preferred) (*)Latitude: 42.6759				Fire Drainage:	Size:	
(*)Latitude: 42.6759		:		Fire	Size:	
(*)Latitude: 42.6759 *)Longitude: -73.7798 TOP	7.5' Quad:			Fire Drainage:	Size: Fuel Type:	(In Acre
*)Longitude: -73.7798	7.5' Quad:	:		Drainage: Aspect:	Size:	(In Acre



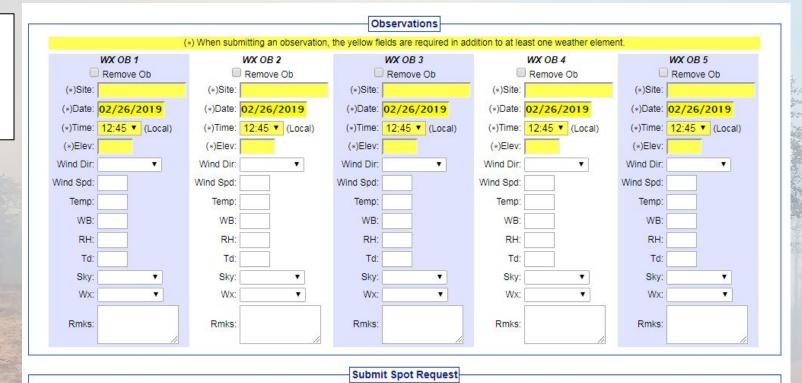








Submit weather observations (optional)



Clicking the button below will create a one time spot request.

This request will be processed and a forecast will be generated by the servicing forecast office at the time they receive the spot request.

At any time until the expiration of this forecast, another immediate spot request may be generated off of the original request. Additionally, the immediate spot request can be converted into a scheduled request by contacting your servicing forecast office.

Click "Submit Request"

Submit Request

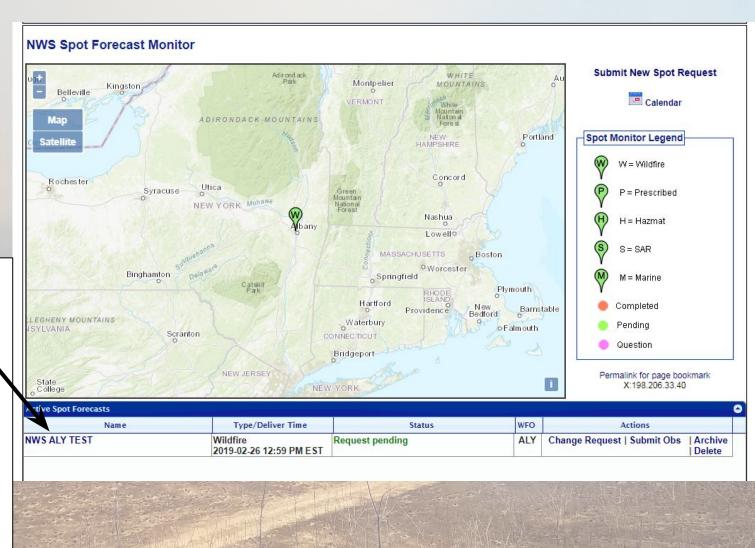
Cancel





Once you submit the request, it will send NWS an alert immediately

Click here once status is "Completed" to view the forecast. An email will also be sent to the address specified in the form when the forecast is ready.





Forecast:



Ash Creek Salvage pile burn

Prescribed Fire

Forecast Start Time: 2019-02-26 11:00 AM MST Request Time: 2019-02-26 10:26 AM MST Deliver Time: 2019-02-26 10:26 AM MST

Forecast Complete At: 2019-02-26 10:41 AM MST



Location Legal:

Lat/Lon: 45.6356 / -106.433

Calculated: 45.6356 / -106.433

Requested By: Northern Cheyenne Agency Phone: Fax:



Elevation: 3772 Drainage: Aspect: East

Fuel Type: (unsheltered)

Observations										
Site	Date	Elev	Wind	Temp	WB	RH	Td	Sky	Wx	Rmk

No observations available

Submit New Observation

Requested	Parameters	Remarks

Х	X	X	Sky/Weathe
X	X	X	Temperatur
X	X	X	Humidity

X X X Chance of Wetting Rain Lightning Activity Level

X X X Wind (20 FT)

X X X Ridge Top Winds X X X Mixing Height

X X X Transport Winds X X X Haines Index

Spot Forecast for Ash Creek Salvage pile burn...Northern Chevenne Agency National Weather Service Billings MT 1040 AM MST Tue Feb 26 2019

Forecast is based on ignition time of 1100 MST on February 26. If conditions become unrepresentative...contact the National Weather Service.

Please contact our office if you have questions or concerns with this forecast.

.DTSCUSSTON...

Periods of light snow are expected this afternoon through the evening...decreasing late tonight. Temperatures today will be in the single digits above zero with lows tonight from zero to 10 below zero. Expect west to northwest winds 5 to 10 mph. Thursday will be a little warmer with just some light snow flurries. Winds will be light out of the south. BT

.REST OF TODAY ...

Sky/weather......Cloudy with periods of snow...mainly afternoon and evening. Max temperature....Zero to 5 above zero. Min humidity.....63-68 percent. Wind (20 ft).....

Slope/vallev.....Northwest winds around 9 mph.

Ridgetop......West around 25 mph. Mixing height......1800 ft AGL.

Transport winds.....Northwest around 15 mph.

Haines index.....2 or very low potential for large plume

dominated fire growth.

CWR.....22 percent.

.TONIGHT...

Sky/weather......Cloudy with scattered snow showers.

Min temperature..... 3 below-8 below zero.

Max humidity......77-82 percent.

Wind (20 ft).....

Slope/valley.....Northwest winds around 6 mph.

Ridgetop......Northwest around 20 mph.

Mixing height.....300 ft AGL.

Transport winds.....Northwest around 9 mph.

CWR.....14 percent.





88

Forecaster...Tesar Requested by...TravisLimpy Type of request...PRESCRIBED .TAG 1901723.1/BYZ .DELDT 02/26/19

.FormatterVersion 1.0.25

.EMAIL travis.limpy@bia.gov

Please Provide Feedback:

Send Feedback

Back to Forecast Monitor

Printer Friendly Version of Forecast Copy Info to Spot Request for a New Incident

Latest Forecast

Copy Info to New Spot Request for this Incident

You can send us feedback in this box, for instance, if the observed weather conditions do not match the forecast

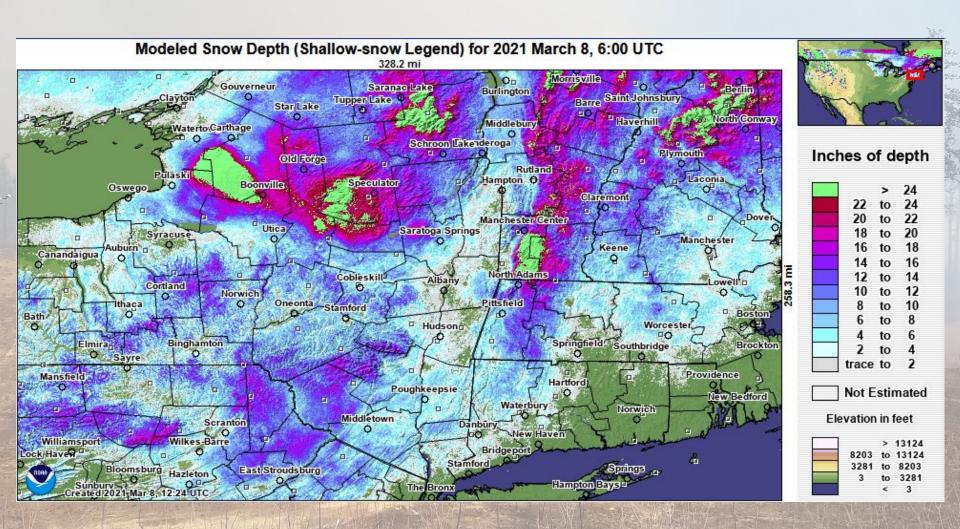








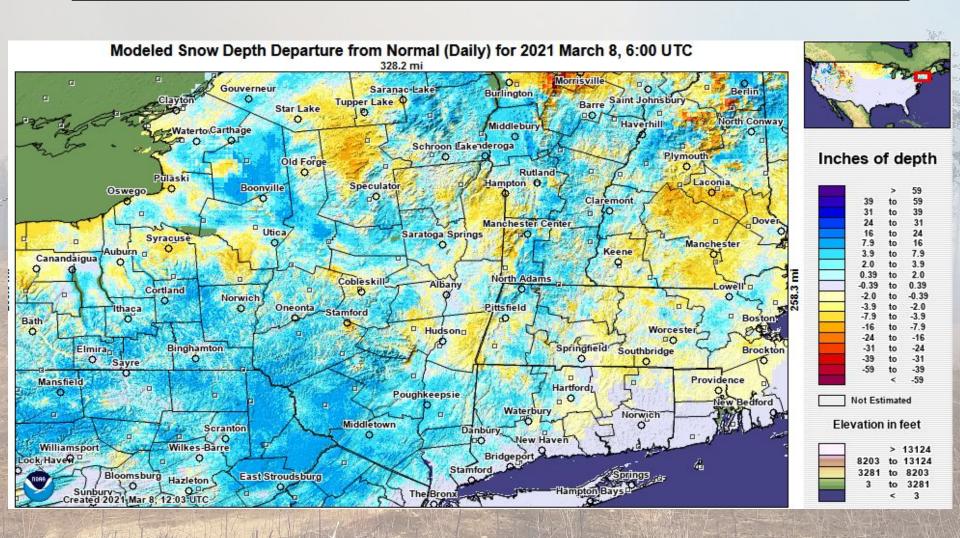
1 Year Ago Today





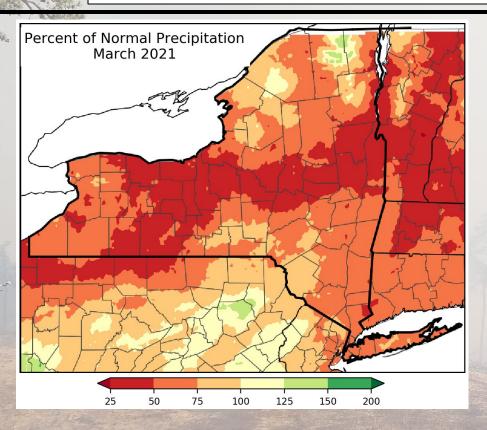


1 Year Ago Today







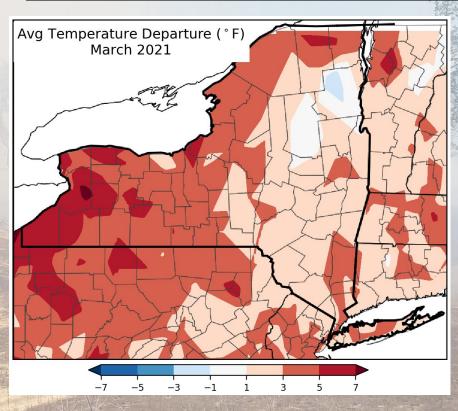


Mar. 2-17:

No measurable precip across most of eastern NY/western New England

March:

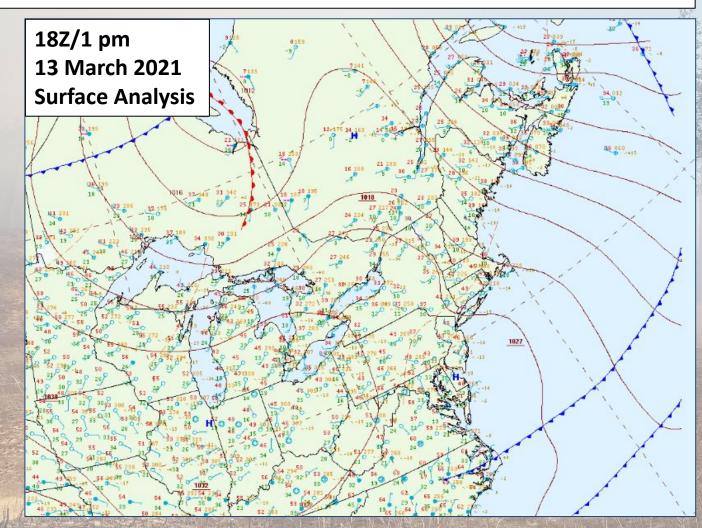
Below normal precip Near to above normal temps







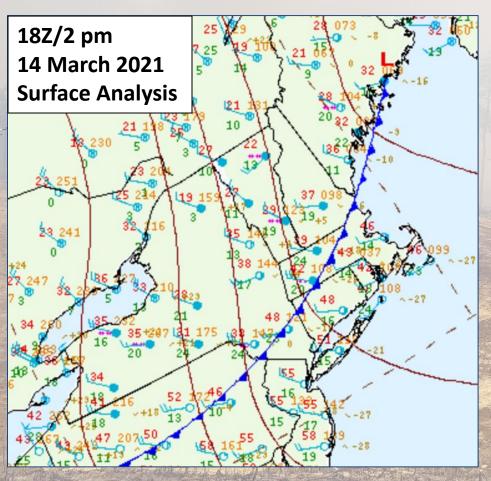
- Mar. 13-15: Red Flag Warnings issued for Berkshire County, MA & Litchfield County, CT, in coordination with NWS Boston
- NWS Albany
 Coordinated
 with NYSDEC:
 fuels did not
 support any
 statement for
 NY

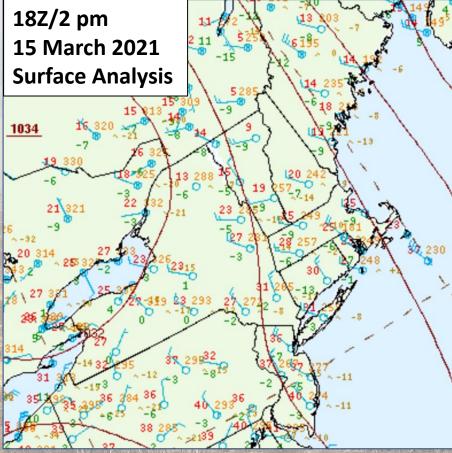






 Mar. 13-15: Red Flag Warnings issued for Berkshire County, MA & Litchfield County, CT, in coordination with NWS Boston

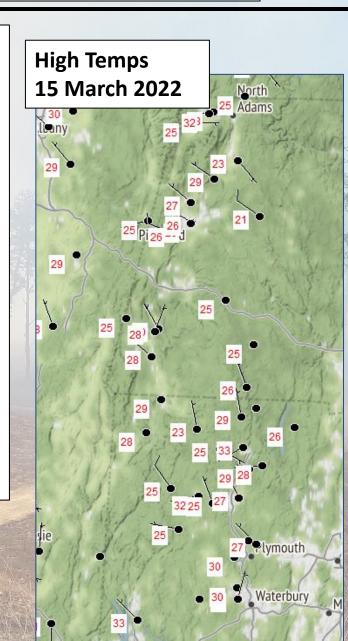






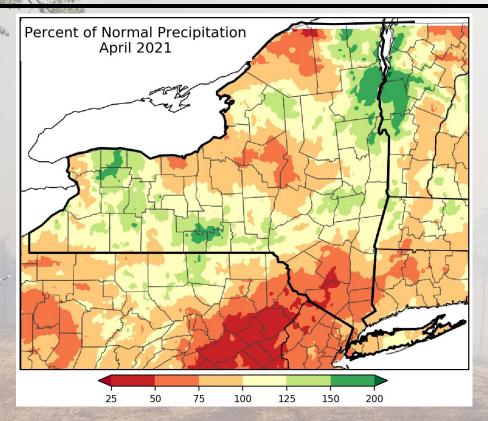


- Mar. 13-15: Red Flag Warnings issued for Berkshire County, MA & Litchfield County, CT, in coordination with NWS Boston
- RH and wind criteria were hit all 3 days for northern Berkshire and northern Litchfield zones, 2 out of 3 days for southern Berkshire/southern Litchfield
- High temps in the mid-20s to low 30s on March 15 - is it ever too cold for Red Flag Warnings?



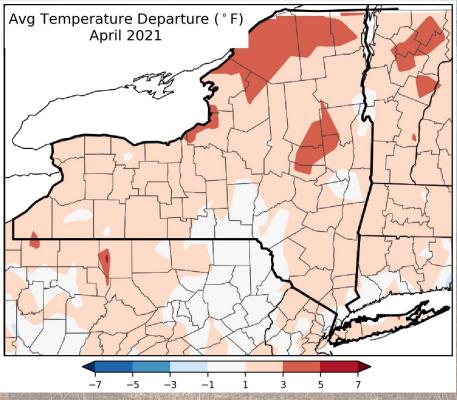






April:

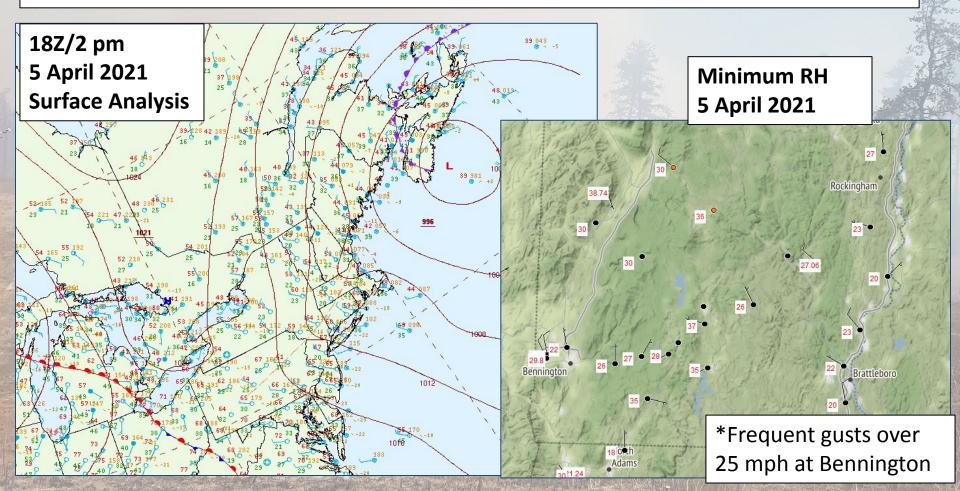
Near to above normal temps
Variable precip







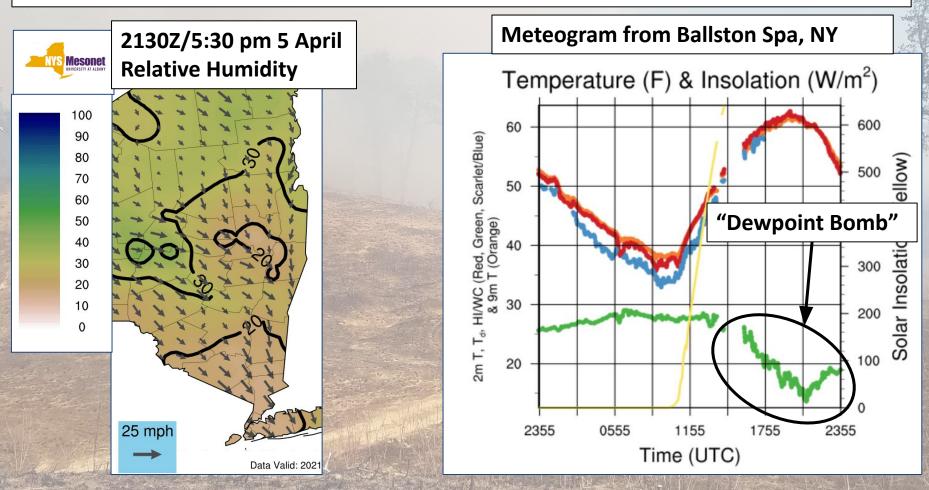
- April 3-4: SPS issued for W. MA, NW CT
- April 5: RFW issued for S. VT; SPS issued for E. NY, W. MA, NW CT
- April 6: SPS issued for all of eastern NY/western New England





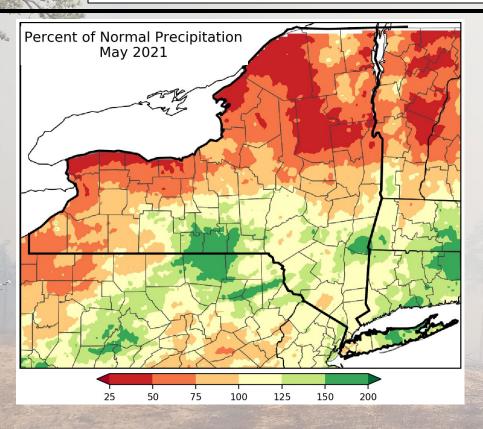


- April 3-4: SPS issued for W. MA, NW CT
- April 5: RFW issued for S. VT; SPS issued for E. NY, W. MA, NW CT
- April 6: SPS issued for all of eastern NY/western New England







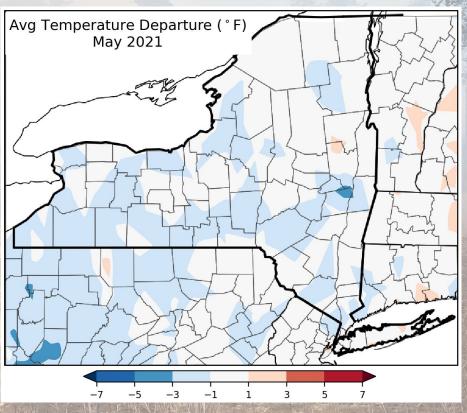


May 11-25:

Very little precip across eastern NY/western New England

May:

Near to below normal temps Below normal precip I-90 north; near normal south







East Mountain Wildfire, May 14-18

- Largest wildfire in MA since 1999; 947 acres burned
- Around 120 firefighters from 19 municipalities responded
- One firefighter hospitalized with minor injuries
- Burned uninhabited areas in the Clarksburg State Forest; resulted in closure of Appalachian Trail

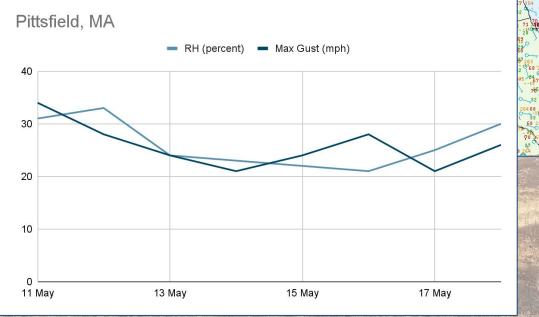






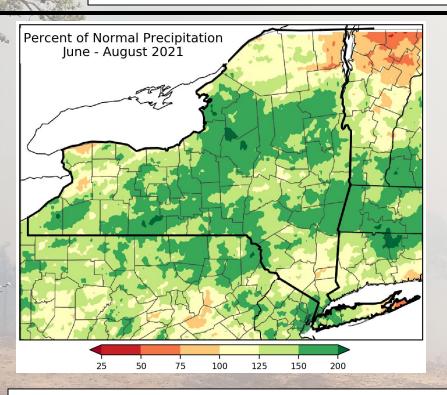


East Mountain Wildfire, May 14-18

 Persistent high pressure blocked moisture from advancing into MA 







Summer

- Mainly wetter than normal
- Abnormally dry conditions in the ADKs in June were wiped out in July/Aug

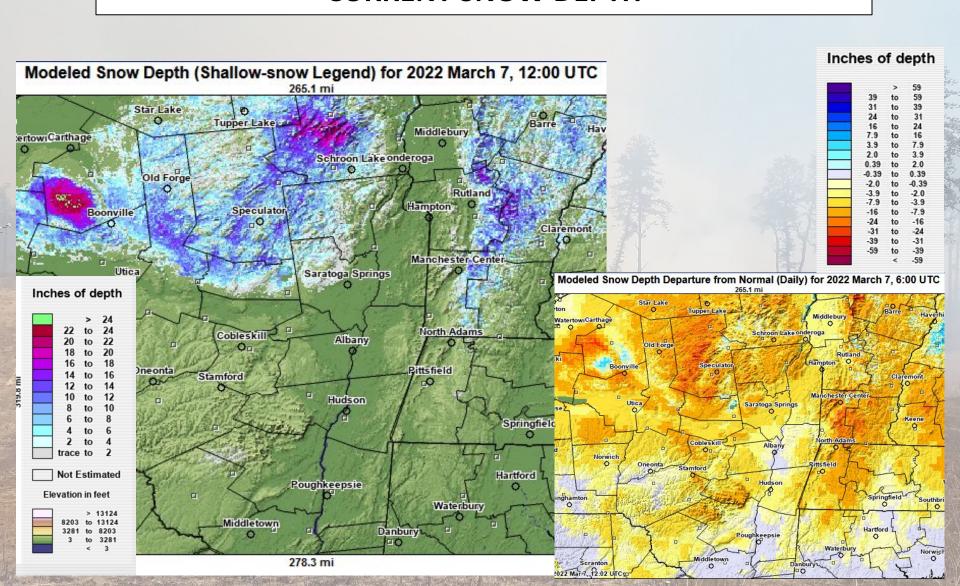








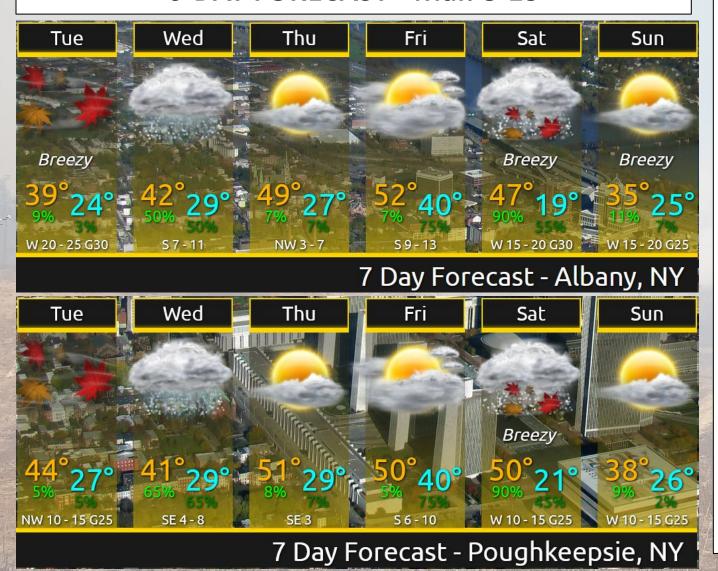
CURRENT SNOW DEPTH







6-DAY FORECAST - Mar. 8-13

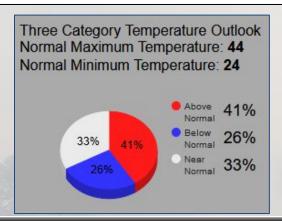


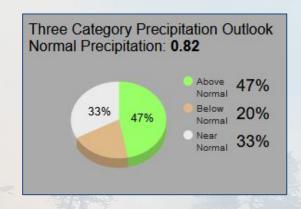
- Milder than normal this week, becoming colder for the weekend
- rain/snow
 Wed.;
 stronger
 storm likely
 Sat with rain
 turning to
 snow?





• March 15-21 likely near to above normal temps and precip









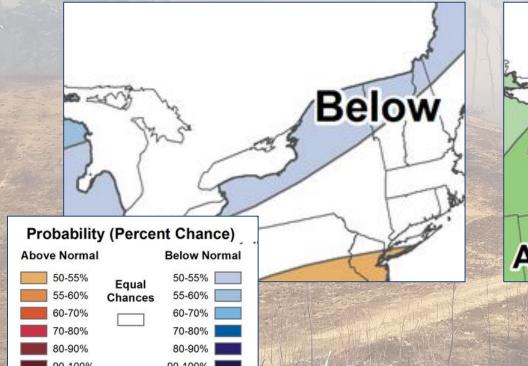


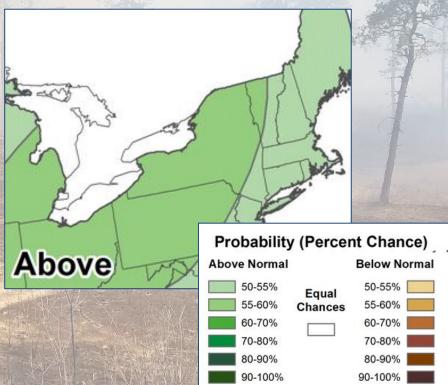


- Equal chances for above/below normal precip late March
- Near to above normal precip favored late March

Climate Prediction Center
Week 3–4 Temperature Outlook
Valid March 19–April 1

Climate Prediction Center
Week 3-4 Precipitation Outlook
Valid March 19-April 1

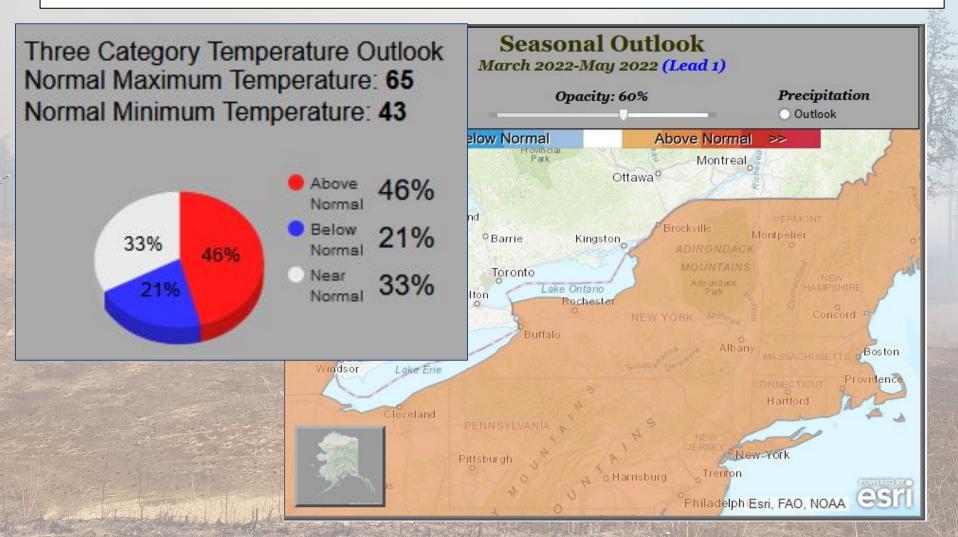








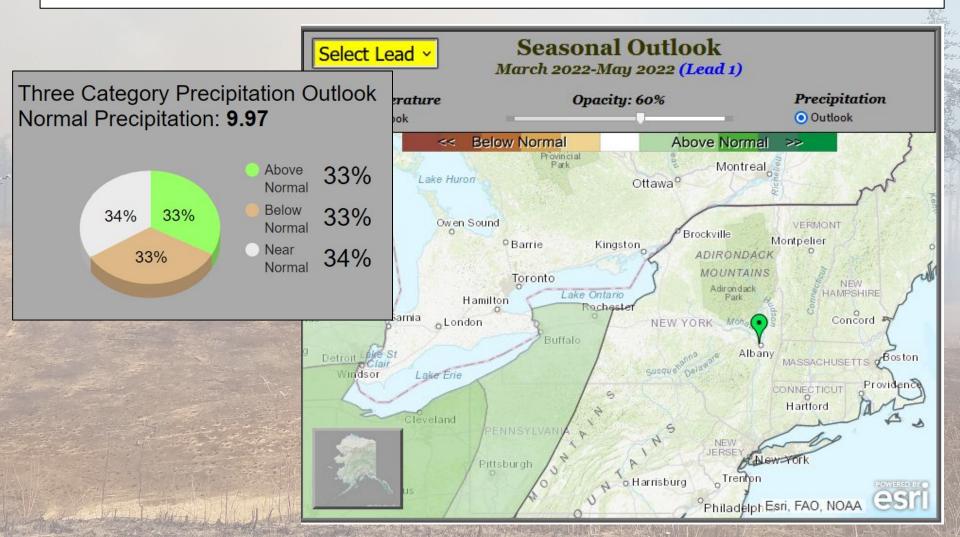
 Climate Prediction Center favoring near to above-normal temperatures during spring (MAM) (80% chance)







 Climate Prediction Center says no clear signal for precip during spring (MAM)







- Little to no snow cover remains, except over southern
 Adirondacks/southern Greens (below normal everywhere)
- A couple of dry/mild/sunny days Thu/Fri, but strong storm possible for Saturday, bringing rain/snow and colder temps in its wake
- Mild/wet pattern expected to resume next week
- Variable temps with above normal precip for the end of March
- Above normal temps favored for spring; no clear signal for precip





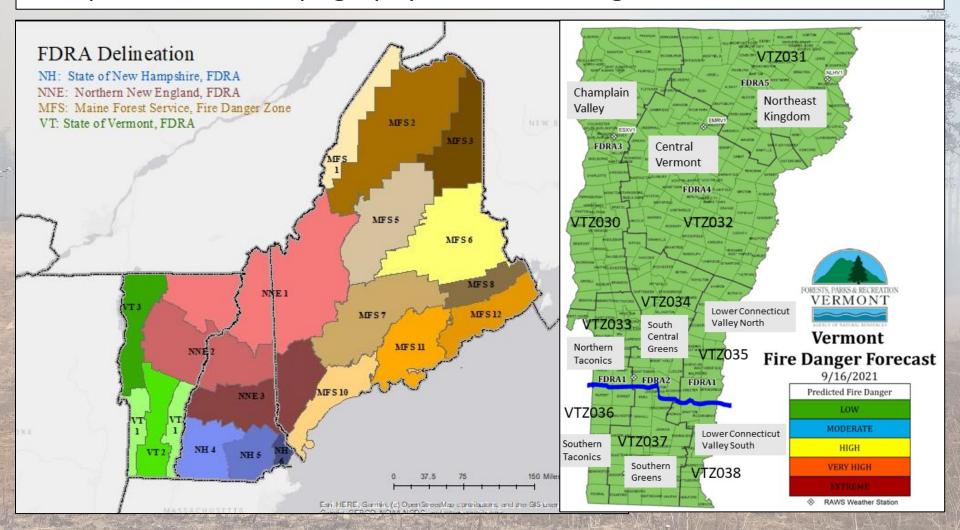


NEW:

Redesigning Fire Wx Zones



 NFDRS v4: New Fire Danger Rating Areas (FDRAs) to better represent fuels, topography, and climatological weather

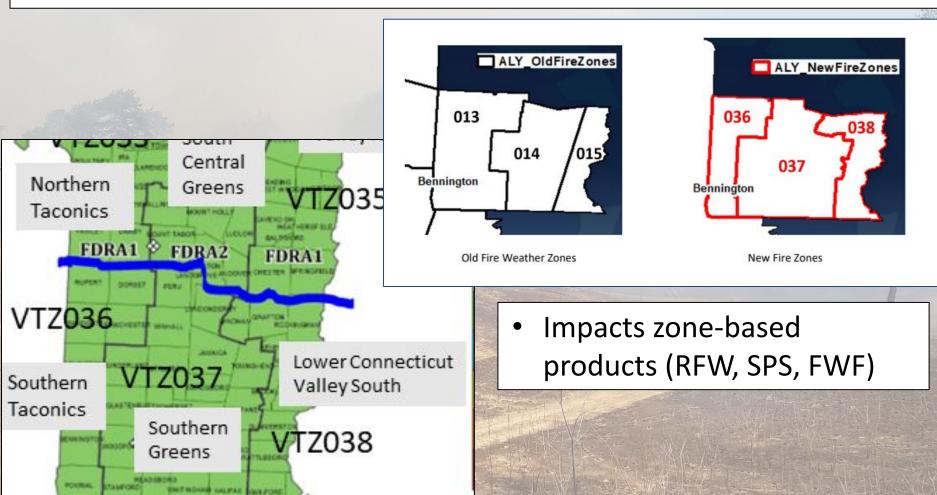




Redesigning Fire Wx Zones



 New fire wx zones for VT go into effect 22 March (NWS Albany and Burlington)

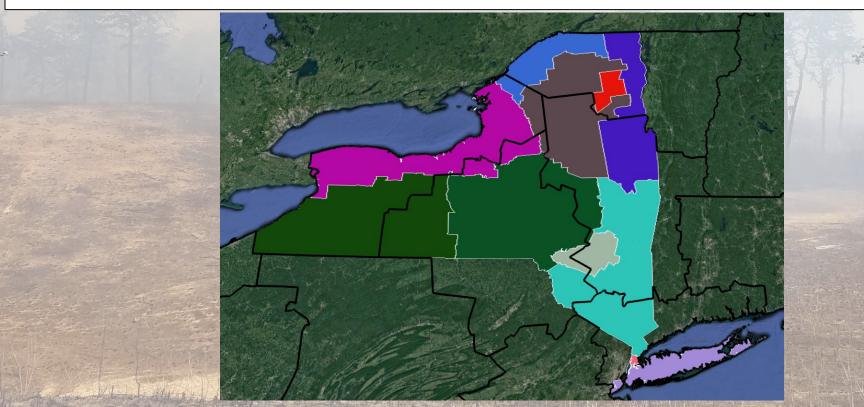




Redesigning Fire Wx Zones



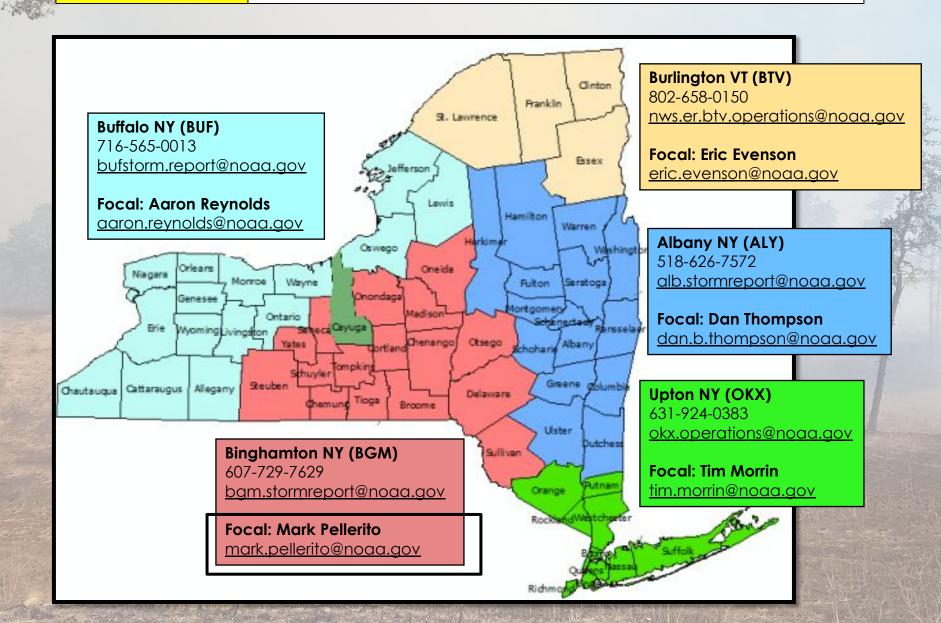
- Working with NYSDEC to align the NY fire wx zones to the FDRAs as best as possible (becomes tricky where FDRAs cross CWA boundaries)
- Expect this to be implemented by March 2023 (lots of internal/technological changes on the NWS end, so process is slow)





NEW: Statewide AOP (Coming Soon)





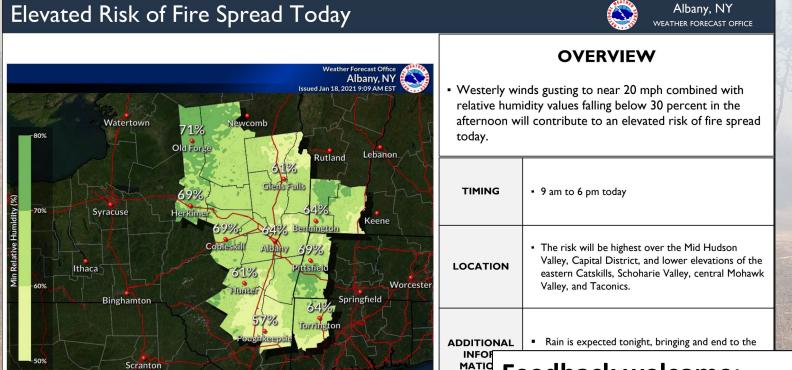


ISSUED: 1/18/2021 9:10 AM

One-Page Briefings



- Sent to the NY/VT fire weather email lists when we issue a Special Weather Statement for elevated risk of fire spread (usually AM)
- Used to raise situational awareness of fire weather conditions
- A more extensive briefing will be issued for Red Flag Warnings



Feedback welcome: dan.b.thompson@noaa.gov



Fire Weather Matrix



- Linked in "Local Products and Forecast" tab of weather.gov/aly/fire
- Point-and-click planning forecast color-coded based on thresholds



	Foreca	ist Matrix	for 44.3	120 -73.97	7232	
Fo	r Planning I Tue Feb 18	Purposes Or Wed Feb 19	nly, See SPO Thu Feb 20	OT for Official Fri Feb 21	Sat Feb 22	Sun Feb 23
LAL	1	1	1	1	1	1
Min Humidity (%)	75	64	60	62	66	61
Max Wind Gust (mph)	41	32	16	23	25	16
Wind Direction *	s	w	w	w	W	sw
Haines	3	3	5	4	3	2
Max Temperature (F)	36	21	9	22	32	35
Max Humidity (%)	85	88	82	100	84	78
Cloud Cover @1500 (%)	100	62	53	46	53	60
Probability of Precip (%)	100	30	8	5	5	13

	Neutral - Values that Neutralize or Suppress Fire Conditions	Caution - Values that Support Elevated Fire Conditions	Danger - Values that Promote Extreme Fire Conditions			
LAL Criteria:	4, 5	2, 3	6			
Min Humidity Criteria:	>= 30 %	21 to 29 %	<= 20 %			
Max Wind Gust Criteria:	<= 10 mph	11 to 19 mph	>= 20 mph			
Wind Direction Criteria:	Criticality of wind direction highly dependent on burn operations and/or structures threatened. Direction matches timing of max gust.					
Haines Criteria:	<= 4	5	6			
Max Temp. Criteria:	Temperature thresholds available between June 1 and September 20.					
Max Humidity Criteria:	>= 55 %	35 to 54 %	<= 34 %			
Cloud Cover Criteria:	>= 40 %	< 39 %				
Probability of Precip Criteria:	>= 40 %	< 39 %				

A Critical Weather Day is when 4 or more parameters are Red.



25

Sun Feb 23

Mon Feb 24

Tue Feb 25

Wed Feb 26

Fire Wx Dashboard



- Linked in "Local Products and Forecast" tab of weather.gov/aly/fire
- Point-and-click forecast hourly/daily
- Mobile-friendly



Thu Feb 27

Fri Feb 28

Sat Feb 29

Sun Mar 01

Mon Mar 02



PHARAOH MOUNTAIN

winds around 15 mph.

Detailed Forecast Data:

TIME (EST)

WIND DIR

Summit Forecasts



weather.gov/aly/mountain

Selected summits in the southern Adirondacks, Catskills, southern **Greens, Berkshires**

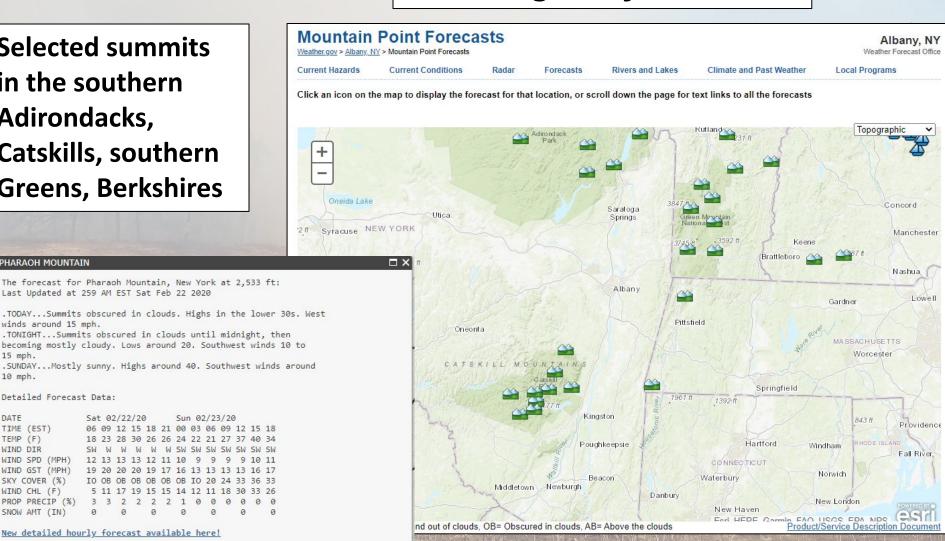
Last Updated at 259 AM EST Sat Feb 22 2020

12 13 13 13 12 11 10

New detailed hourly forecast available here!

19 20 20 20 19 17 16 13 13 13

Sun 02/23/20

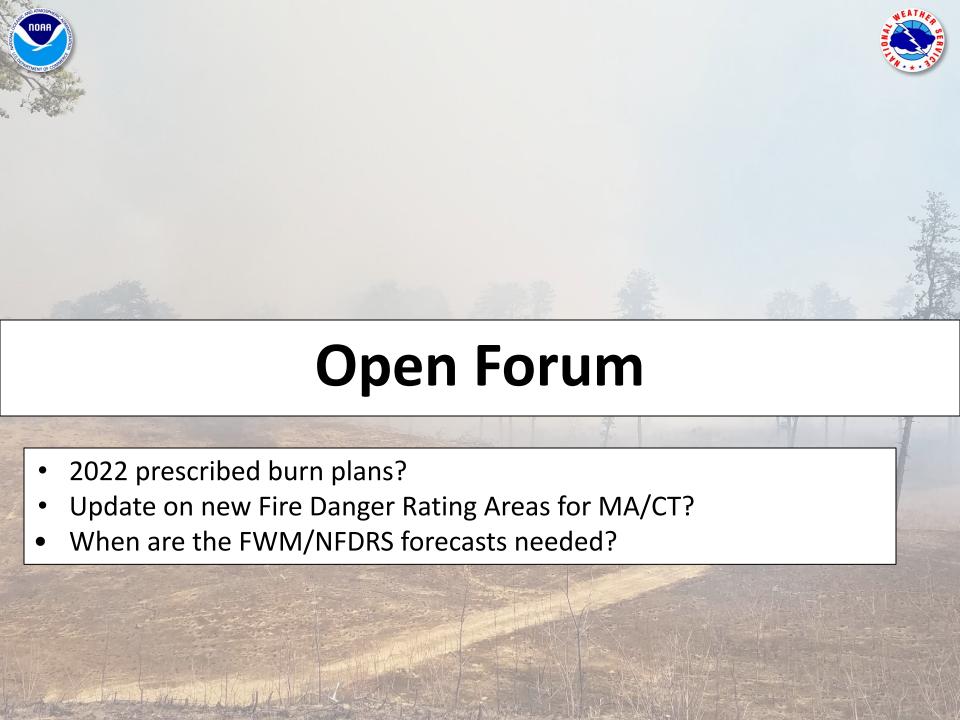






Start of NWS Albany Fire Weather Season

Monday, March 14th









Thank You!

Dan Thompson

NWS Albany

Meteorologist/Fire Weather Program Leader dan.b.thompson@noaa.gov

Steve DiRienzo

NWS Albany
Warning Coordination Meteorologist/
Acting Meteorologist-In-Charge
stephen.dirienzo@noaa.gov